## Amendments to the Claims:

This listing of claims will replace all prior versions, and listing of claims in the application.

- 1. (Currently Amended) An event clustering method <u>for clustering</u> <u>images comprising similar events into same event image groups using foreground and background segmentation for clustering images</u> from a group <u>of images</u>, <u>into similar events</u>, said <u>event clustering</u> method <u>comprising including</u> the steps of:
- (a) segmenting each image within the group of images into a plurality of image regions, said image regions comprising at least one-a foreground and a background segmentation;
- (b) extracting at least one or more features from each of a plurality of successive images from the group of images to form a feature set, each of said at least one feature deriving from the regions comprising the said at least one foreground and background segmentation, said features including at comprising at least one of luminosity, color, position and size of the said plurality of image regions;
- (c) computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set utilizing the features to compute the similarity of the regions comprising the foreground and background of successive images in the group;
- (d) computing a measure of the total similarity between successive images, thereby providing a measure of measuring a plurality of image distances between successive images as a function of said plurality of similarity measures; and
- (e) delimiting <u>a set of</u> event clusters <u>as a function of said plurality of from</u> the image distances, whereby <u>each of said set of the event clusters comprises a plurality of same event image include groups, said same event image groups comprising of images pertaining to the <u>a set of</u> same events.</u>
- 2. (Currently Amended) The method as claimed in Claim 1 wherein the step (c) <u>further comprises the step of computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set utilizes the features to for generate</u>

generating a distance measure that indicates the similarity or dissimilarity between said image the regions.

- 3. (Currently Amended) The method as claimed in Claim 1 wherein if a predetermined number of <u>said image</u> regions formed in step (a) are each less than a predetermined size, then a fixed <u>image</u> region is generated for the foreground <u>within said foreground and background segmentation</u>.
- 4. (Currently Amended) The method as claimed in Claim 1 wherein the group of images are arranged in a chronological order and step (c) further comprises the step of computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set utilizes the features to for estimate estimating and compare comparing the similarity of said image regions comprising said foreground and background segmentation in every other image in the group of images and step (d) further comprises the step of measuring a plurality of computes a measure of the total similarity between every other image, thereby providing image distances according to the total similarity between successive images and every other image.
- 5. (Currently Amended) The method as claimed in Claim 1 wherein the group of images are arranged in a chronological order and step (c) further comprises the step of computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set utilizes the features to estimate estimating and compare comparing the similarity of said image regions comprising said foreground and background segmentation in every other two images in the group of images and step (d) comprises the step of measuring a plurality of computes a measure of the total similarity between every other two images, thereby providing image distances according to the total similarity between successive images and every other two images.
- 6. (Original) A computer storage medium having instructions stored therein for causing a computer for perform the method of Claim 1.

- 7. (Currently Amended) An event clustering method using foreground and background segmentation for clustering images from a group of images into for clustering images comprising similar events similar events into same event image groups, said event clustering method including the steps of:
- (a) dividing each image into a plurality of blocks, thereby providing block-based images;
- (b) utilizing a block-by-block comparison to segment each block-based image into a plurality of regions comprising at least a <u>one</u> foreground and background <u>segmentation</u>;
- (c) extracting at least one or more features from each of a plurality of successive images from the group of images to form a feature set, each of said at least one feature deriving from the regions comprising said at least one the foreground and background segmentation, said features including at comprising at least one of luminosity, color, position and size of the regions;
- (d) computing a plurality of similarity measures for said plurality of successive images as a function of the similarity of said at least one feature within said feature set the features to compute the similarity of the regions comprising the foreground and background of successive images in the group, thereby leading to a plurality of measure of image distance measures as a function of said plurality of similarity measures between successive images; and
- (e) delimiting <u>a set of</u> event clusters <u>as a function of said plurality of</u> from the image distances, whereby <u>each of said set of the</u> event clusters <u>comprises</u> <u>a plurality of same event image groups</u>, <u>include said same event image groups</u> <u>comprising of images pertaining to a set of the same events.</u>
- 8. (Currently Amended) The method as claimed in Claim 7 wherein the block-by-block comparison in step (b) comprises extracting one or more of said features from the blocks, utilizing the features to compute the similarity of each block with respect to its neighboring blocks, forming regions from similar blocks and merging similar regions into a background and a foreground segmentation.
- 9. (Original) A computer storage medium having instructions stored therein for causing a computer for perform the method of Claim 7.

- 10. (**Original**) The method as claimed in Claim 7 wherein if a predetermined number of regions formed in step (b) are each less than a predetermined size, then a fixed regions is generated for the foreground.
- 11. (Currently Amended) An event clustering method using foreground and background segmentation for clustering images from a group of images into similar events, said method including the steps of:
- (a) dividing each image into a plurality of blocks, thereby providing block-based images;
- (b) utilizing a block-by-block comparison to segment each block-based image into a plurality of regions, wherein a first combination of regions comprises a foreground <u>segmentation</u> and a second combination of regions comprises a background <u>segmentation</u>;
- (c) extracting one or more features from the <u>said plurality of</u> regions comprising the <u>said</u> foreground <u>segmentation</u> and background <u>segmentation</u>, said features <u>including at comprising at</u> least one of luminosity, color, position and size of the regions;
- (d) utilizing the features to compute computing a the similarity measure between each region of the combination comprising athe foreground segmentation of one image in the group and each region comprising the foreground segmentation of another image in the group of images, and further computing a the similarity measure between each region of the combination comprising the background segmentation of said one image in the group of images and each region comprising the background segmentation of said another image in the group of images;
- (e) computing a mean value measure of the total similarity between successive images based on the similarity of all regions included in the combinations comprising the <u>said</u> foreground <u>segmentation</u> and <u>said</u> background <u>segmentation</u>, thereby providing a measure of image distance between said images; and
- (f) delimiting <u>a set of event</u> event clusters <u>as a function of said</u>

  <u>plurality of from the image distances</u>, whereby <u>each of said set of the event</u>

  clusters <u>comprises a plurality of same event image include</u> groups, <u>said same</u>

  <u>event image groups comprising of images pertaining to a set of the same events.</u>

- 12. (Currently Amended) The method as claimed in Claim 11 wherein said the computation of the similarity between each region in step (d) further comprises the step of computing includes a component to account for the relative sizes of the regions.
- 13. (Original) A computer storage medium having instructions stored therein for causing a computer for perform the method of Claim 11.
- 14. (Currently Amended) A method for clustering a sequence of images into events based on similarities between the images, said method comprising the steps of:
- (a) segmenting each image into <u>a plurality of</u> regions, including combinations of one or more regions comprising a foreground and a background <u>segmentation</u>;
  - (b) extracting low-level features from the said plurality of regions;
- (c) utilizing the low-level features to for compare comparing said plurality of regions comprising thesaid foreground and background segmentation of successive images, said comparison generating an image similarity measure for the said regions comprising the said foreground and background segmentation of the successive images;
- (d) combining the image similarity measures for the regions comprising the <u>said</u> foreground and background <u>segmentation</u> of the <u>said</u> successive images to <u>for</u> obtaining a global similarity measure; and
- (e) delimiting event clusters by using the said global similarity measure.
- 15. (Currently Amended) The method as claimed in Claim 14 wherein said low-level features include further comprise at least one of luminosity, color, position and size of the said regions.

## 16. [Cancelled]

- 17. (Currently Amended) A system using foreground and background segmentation for clustering images from a group of images into a plurality of similar events image groups, said system comprising:
- (a) a first module for dividing each image into a plurality of blocks, thereby providing block-based images, said first module then utilizing a block-by-block comparison to segment each block-based image into a plurality of regions comprising at least a foreground and a background segmentation;
- (b) a second module for extracting one or more features from the regions comprising the said foreground and background segmentation, said features including at comprising at least one of luminosity, color, position and size of the regions;
- (c) a third module for utilizing the features to compute the similarity of the regions comprising the foreground and background segmentation of successive images in the group, whereby said similarity includes a component to account for the relative sizes of the regions, said third module computing a mean value measure of the total similarity between successive images, thereby providing a measure of image distance between successive images; and
- (d) a fourth module for delimiting event clusters from the image distances, whereby the event clusters include groups of images pertaining to the same events.
- 18. (Currently Amended) The system as claimed in Claim 17 wherein the group of images are arranged in a chronological order and said third module further utilizes the features to estimate and compare the similarity of regions comprising foreground and background <u>segmentation</u> in every other image in the group <u>of images</u> and computes a measure of the total similarity between every other image, thereby providing image distance between successive images and every other image.
- 19. (Currently Amended) The system as claimed in Claim 17 wherein the group of images are arranged in a chronological order and the third module further utilizes the features to estimate and compare the similarity of regions comprising foreground and background segmentation in every other two images in the group of images and computes a measure of the total similarity between

every other two images, thereby providing image distance between successive images and every other two images.